

HEMIPTEROLOGICAL NOTES.

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Anasa repetita Heidemann.

On September 19, 1917 at Northampton, Mass., I found this species in large numbers feeding on the Star-cucumber, *Sicyos angulatus* Linn. More than fifty examples, both adults and nymphs, were taken on two vines. The rarity of the species in collections is undoubtedly due to the fact that its food-plant has been unknown to collectors. I noted one example of *Anasa armigera* Say on the same plant and another in flight nearby.

Melanolestes picipes var. *abdominalis* Herrich-Schaeffer.

The forms of this Reduviid which exhibit more or less red on the abdomen are usually considered to constitute a distinct species, *M. abdominalis*, as originally described by Herrich-Schaeffer, although there seem to be no structural criteria to separate the two. Stal¹ treated *abdominalis* as a color variety (var. b) of *picipes*, but Uhler² felt that the evidence at his command did not warrant his merging them, since he never found the two forms united in copulation though both often occurred under the same stone. I have in my collection examples showing all gradations from those having only the slightest tinge of red along the connexivum to those having the abdomen entirely red; I have also a pair taken in copulation (Framingham, Mass., C. A. Frost) in which the male is an entirely black long-winged *picipes* and the female a short-winged *abdominalis*, with red connexivum. It would seem therefore that the *abdominalis* form should be ranked as a mere color variety and not as a species distinct from *picipes*, as I have done in my New England list.

The consideration of this case brings up the matter of color varieties and subspecific forms in general. In the study of some groups of insects, notably ants, the subdivisions of species are treated according to a definite system based on a relatively com-

¹ Enum. Hem. 2, 1872, p. 107.

² Hem. west of Mississippi River, Bull. U. S. Geol. & Geog. Surv. Terr., II., No. 5, 1876, p. 330.

plete knowledge of the forms, the concepts *subspecies* and *variety*, for instance, being distinct and clearly formulated. The study of the Hemiptera is less advanced, and there is usually insufficient ground for deciding whether a certain form of a species is to be considered subspecific (racial) or varietal in this strict sense. This being the case I have thus far denominated as varieties all forms of less than specific value, and have used trinomials in their designation, leaving it to be inferred that all such varieties pertain, perhaps, to the typical subspecies, as their frequently coincident ranges would seem to indicate.

Recently a tendency has become very evident to give definite varietal names not only to forms characterized by slight structural peculiarities but also to those differing only in color. Examples of the latter are to be found in the Mirid genera *Horcias*¹ and *Paracalocoris*.² Specimens of *Horcias dislocatus*, for instance, may be almost entirely black, almost entirely red, or conspicuously striped with red, black, and yellow. But a varied and more or less intergrading collection of these different forms may sometimes be taken from a single branch, and may very possibly have issued from the same batch of eggs. Thus such "varieties" represent a very different conception from the varieties of the myrmecologist, corresponding in some cases, no doubt, to his unnamed "nest-varieties," and this must be borne in mind in considering the trinomial names of Hemiptera.

As remarked by McAtee, it seems unscientific to make no attempt in collections and taxonomic treatments to separate these often totally distinct appearing forms, and if they are to be separated they should be given names for several good reasons. I have recently received communications on the subject which lead me to suggest that this matter calls for discussion with a view to bringing hemipterological concepts and nomenclature into harmony with the ideas established in the study of groups which are better understood. At present I, for one, use the term *variety* non-committally to designate subdivisions of the species (*not* aberrations) which I think should be named, but without any structural, geographic, or genetic connotation.

¹ Van Duzee, E. P. Hemipterological Gleanings, Bull. Buffalo Soc. Nat. Sci., Vol. 10, 1912, pp. 477-512.

² McAtee, W. L. Key to the Nearctic species of *Paracalocoris*, Ann. Ent. Soc. America, Vol. 9, 1916, pp. 366-390.